

UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA

SUNGKYUNKWAN UNIVERSITY  
FOUNDATION FOR CORPORATE  
COLLABORATION,

Plaintiff,

v.

PINTEREST, INC.,

Defendant.

Case No. 5:19-cv-02677-NC

**CLAIM CONSTRUCTION ORDER**

Plaintiff Sungkyunkwan University Foundation for Corporate Collaboration (“SKKU”) filed this patent infringement action against Defendant Pinterest, Inc. The parties dispute the construction of a total of eight terms found within one patent: U.S. Patent No. 8,639,687 (the ‘687 Patent). The technology at issue is about collecting user preferences and generating customized content. Having considered the parties’ briefing and claim construction arguments in the June 17, 2020, Markman hearing, the Court construes the terms as set forth below.

**I. BACKGROUND**

Plaintiff Sungkyunkwan University is a Korean university founded in 1398 in South Korea. Pl. Br. at 1. Defendant Pinterest is a Delaware corporation with its principal place of business in San Francisco, California. Answer at 3. Pinterest has a website platform as well as “the Pinterest app.” *See All About Pinterest*, Pinterest, <https://help.pinterest.com/en/guide/all-about-pinterest> (last visited June 26, 2020);

https://help.pinterest.com/en/article/use-pinterest-in-a-mobile-browser (last visited June 26, 2020). Pinterest personalizes content for its users and “connect[s] them to pins and people that relate to their interests.” *See* Compl. ¶9 (quoting “https://medium.com/@Pinterest\_Engineering/building-the-interests-platform-73a3a3755c21”); Def. Resp. Br. at 1. Pinterest “aggregate[s] . . . information related with a person’s interests” and “recommends interests based upon Pins with which a Pinner interacts.” *See* Compl. ¶ 9 (citing “https://medium.com/@Pinterest\_Engineering/building-the-interests-platform-73a3a3755c21”). Pinterest maintains user preference information on servers. Def. Resp. Br. at 6–7.

The patent at issue is United States Patent No. 8,639,687, titled “User-customized content providing device, method and recorded medium,” issued January 28, 2014. Compl. Exhibit A. SKKU is the exclusive owner of the ’687 Patent. *Id.* The parties seek construction of eight terms<sup>1</sup> in claim 9 in the ’687 Patent. Joint Claim Construction at 2–4.

Claim 9 of the ’687 Patent, with the disputed terms in bold, is set forth below:

9. A user-customized content providing method, comprising:  
 searching **a content set related to user’s search query word**;  
**asking an apparatus** for user preference information  
 including a user profile and tag information, the user profile  
 including a keyword **collected in the apparatus** and a point  
 applied with a weight given per keyword;  
 receiving the user preference information from the apparatus;  
 determining a ranking of the content set according to the  
 relation to the user preference information; and  
 providing the ranked content set to the apparatus,  
 wherein the keyword is **detected by using tag information**  
**extracted from** at least one tag of **an anchor tag, a form tag**  
 and a combination thereof that are included in **a web**  
**document outputted to the apparatus**, and  
 wherein the point per keyword is **calculated based on data**

<sup>1</sup> The parties originally sought construction of nine terms. Joint Claim Construction at 1–3. Before and during the June 17, 2020, Markman hearing, the parties stipulated to withdrawing Term 6 because it is duplicative of Term 1, which brings the total number of terms currently before the Court to eight.

related to a number of selections of the keyword by the user, selection of the keyword comprising clicking the anchor tag including the keyword.

In other words, Claim 9 sets out a method to provide a user with information that is customized to the user's interest.

Among the eight disputed terms, the parties disagree on terms including "apparatus," and "content set," as well as "anchor tag," "form tag," and "web document." Additionally, the parties disagree on the meanings of certain actions that Claim 9 method enumerates. For example, Pinterest seeks to clarify the meaning of "asking," "collected," and "detected." Pinterest also disputes SKKU's construction of a calculation method for generating user preference information.

All parties have consented to the jurisdiction of a magistrate judge under 28 U.S.C. § 636(c). Dkt. Nos. 10, 22.

## II. LEGAL STANDARD

"It is a 'bedrock principle' of patent law that 'the claims of the patent define the invention to which the patentee is entitled the right to exclude.'" *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (quoting *Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1115 (Fed. Cir. 2004)). Patent term construction is a question of law to be decided by the Court. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979 (Fed. Cir. 1995) (en banc), *aff'd*, 517 U.S. 370 (1996). The Court has an "independent obligation to determine the meaning of the claims, notwithstanding the views asserted by the adversary parties." *Exxon Chem. Patents, Inc. v. Lubrizol Corp.*, 64 F.3d 1553, 1555 (Fed. Cir. 1995). The Court's interpretation of a term must be based upon what the inventors "actually invented and intended to envelop with the claim." *Phillips*, 415 F.3d at 1316 (internal quotations omitted). Terms should be construed in the way that "most naturally aligns with the patent's description of the invention." *Id.*

The first step of the Court's claim construction process is to look at the language of the claims themselves. *See generally Breville Pty Ltd. v. Storebound LLC*, Case No. 12-cv-01783 JST, 2013 WL 3153383 (N.D. Cal. June 19, 2013). A disputed claim should be

1 construed according to the “ordinary and customary meaning . . . that the term would have  
2 to a person of ordinary skill in the art in question at the time of the invention.” *Phillips*,  
3 415 F.3d at 1312. Claim construction may only deviate from the ordinary and customary  
4 meaning of a term when (1) a patentee sets out a definition and acts as his own  
5 lexicographer, or (2) the patentee disavows the full scope of a claim term either in the  
6 specification or during prosecution. *Thorner v. Sony Computer Entm’t Am. LLC*, 669 F.3d  
7 1362, 1365 (Fed. Cir. 2012).

8 Ordinary and customary meaning refers to a term’s meaning “to the ordinary artisan  
9 after reading the entire patent,” based on intrinsic evidence in its particular context.  
10 *Phillips*, 415 F.3d at 1321. That particular context is the patent’s specification, which is  
11 typically the single best guide to the meaning of a disputed term. *Victronics Corp. v.*  
12 *Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996). The Court may therefore “rely  
13 heavily on the written description for guidance as to the meaning of claims.” *Phillips*, 415  
14 F.3d at 1315. The Court may also look to other claims in the patent, because terms are  
15 usually used consistently throughout a patent. *Id.*

16 Next, the Court looks to the patent’s prosecution history. This history may show  
17 how the inventor and the PTO understood the patent and whether the inventor limited the  
18 invention in the course of prosecution. *Id.* at 1317. The Court should give less weight to  
19 the prosecution history than to the claims and the specification, because the history reflects  
20 an ongoing negotiation with the PTO wherein it is difficult to ascertain the precise  
21 meanings of isolated statements. *Id.*

22 The Court may also consider extrinsic evidence such as expert testimony,  
23 dictionaries, and treatises. *Markman*, 52 F.3d at 980. This evidence is “less reliable than  
24 the patent and its prosecution history.” *Phillips*, 415 F.3d at 1318. As such, the Court  
25 must defer to intrinsic evidence over extrinsic when they each mandate different  
26 definitions of terms. *Id.*

### 27 **III. ANALYSIS**

28 The Court discusses the eight disputed terms in turn, presenting the parties’

competing definitions and indicating where it adopts one or declines to adopt either proposal. The Court’s final construction of all the disputed term follows.

Term 1	SKKU’s Construction	Pinterest’s Construction
“detected by using tag information extracted from...an anchor tag”	“performing a detection operation of a keyword with tag information either before or after the tag information is written to a store, where such tag information is extracted from, for example, the tag generating a hyperlink among the HTML producing the hyperlink text”	“read from the text of an anchor tag clicked by the user at the time the anchor tag is clicked and the corresponding web document is outputted to the user device”

Term 1 refers to how a keyword is detected. The parties’ dispute over this term reduces to whether an explicit definition in the specification controls over a narrower definition derived from the patent’s background and disclosure that explains how and when detection happens. Pinterest’s construction creates a temporal limitation: it refers to reading the tag information only *after* it is stored, not before.

The specification explicitly states, “the keywords of the anchor text can be firstly extracted . . . the anchor text can consist of the keywords” and “the operation of detecting the keywords can be performed at any time after or before the mapping table is created.” ’687 Patent col. 8:40–45. In other words, keywords can be detected through reading from an anchor tag *before* tag information is stored in a mapping table. Keywords can also be detected through keyword extraction from the mapping table *after* the mapping table has been created. Pinterest argues that “there is no other logical time for when the detection operation could occur” besides when the user clicks on the anchor tag. Def. Resp. Br. at 9. SKKU’s proposal removes this temporal limitation by describing the detection operation as occurring “either before or after” the tag information is stored.

The Court adopts SKKU’s construction. The patentee may define a term by implication by “us[ing] a claim term throughout the entire patent specification, in a manner

consistent with only a single meaning.” *Bell Atl. Network Servs., Inc. v. Covad Commc’ns Grp., Inc.*, 262 F.3d 1258, 1271 (Fed. Cir. 2001). Pinterest relies too heavily on the prosecution history, to which the Court gives less weight than to the specification and the term’s use in other claims. *Phillips*, 415 F.3d at 1317. Pinterest’s construction inserts a temporal aspect that is narrower than is reflected in the original patent, while SKKU’s construction has clear support from the patent’s specification.

Moreover, Pinterest’s construction reads in another limitation that is not apparent in the original patent. Pinterest limits “detection” to mean “reading from . . . the text of an anchor tag.” But keywords can also be extracted from the stored tags in the mapping table. Pinterest’s limitation is disfavored because courts “normally do not interpret claim terms in a way that excludes disclosed examples in the specification.” ’687 Patent col. 8:40–45; *Verizon Servs. Corp. v. Vonage Holdings Corp.*, 503 F.3d 1295, 1305 (Fed. Cir. 2007).

The Court sees no basis to adopt Pinterest’s limitations, while SKKU’s construction is consistent with the specification. Accordingly, the Court construes Term 1 as follows: “performing a detection operation of a keyword with tag information either before or after the tag information is written to a store, where such tag information is extracted from, for example, the tag generating a hyperlink among the HTML producing the hyperlink text.”

Term 2	SKKU’s Construction	Pinterest’s Construction
“calculated based on data related to a number of selections of the keyword”	“calculated based on data related to whether or not a recognized keyword is selected by the user”	“determined based on calculation of the number of times an anchor tag including the keyword is clicked”

Term 2 is about how the weight per keyword is calculated. Pinterest argues that by the plain language of the term, the points assigned to a keyword are based on the number of times a keyword-containing anchor tag is selected. Def. Resp. Br. at 11–12. SKKU objects to Pinterest’s construction on grounds that it excludes the scenario when the user does not click the keyword, which is factored in the calculation of the points per keyword.

Pl. Reply Br. at 6–7. SKKU points to the phrase that follows Term 2: “selection of the keyword *comprising clicking the anchor tag*. . .” and argues that Pinterest’s quantitative construction would exclude the qualitative calculation clicking. Pl. Reply Br. at 6; ’687 Patent col. 14:34–38. (emphasis added).

The Court adopts Pinterest’s construction. The plain language of the phrase “calculated based on data related to a number of selections of the keyword” does not lead to the conclusion that the calculation process is based on binary clicking. Rather than reference whether a keyword is or is not clicked, the language of the patent clearly references the “*number of*,” or frequency of, clicks. ’687 Patent col. 12:61–65. The Court recognizes that the patent attributes positive and negative points depending on whether a user clicks an anchor tag, as evidenced in the specific formula both parties mentioned. ’687 Patent col. 10:26–34. Nevertheless, the plain language of Term 2 in Claim 9 does not include this limitation. ’687 Patent col. 12:61–65. Thus, the Court declines SKKU’s proposal to essentially remove the phrase “number of selections” from the term.

Accordingly, the Court construes Term 2 as follows: “determined based on calculation of the number of times an anchor tag including the keyword is clicked.”

Term 3	SKKU’s Construction	Pinterest’s Construction
“content set related to user’s search query word”	“indexing and searching data such as, for example, webpages, video, multimedia files, and PDF files”	Indefinite

Pinterest argues that the phrase “content set related to” is inherently indefinite because the specification provides no guidance on what “related to” means. Def. Resp. Br. at 13. SKKU asserts that the term “content set” has a definite meaning to one of ordinary skill in the art: “content set” means “data that is searchable and indexable.” Pl. Reply Br. at 7–8. SKKU does not propose any alternative construction of the phrase “related to the user’s search query word.”



The phrase “content set related to user’s search query word” is easy to understand. “Content” means anything searchable on the internet, as evidenced in the patent’s specification, which states that “the ‘contents’ can refer to the data having format capable of being indexed and searched . . .” ’687 Patent col. 5:55–58. Thus, the Court adopts SKKU’s construction of the term “content,” but finds that SKKU’s proposed construction of Term 3 is incomplete because SKKU did not propose a construction of the phrase “related to user’s search query word.”

The phrase “related to a user’s search query word” should be understood based on its plain meaning: when a user searches the web using a query word, “the content searching unit 220” would search the contents “related to the search query word” and return the searched results. *See* ’687 Patent col. 6:35–37. This phrase therefore requires no further construction.

Accordingly, the Court adopts SKKU’s partial construction as to the word “content” and construes Term 3 as follows: “indexable and searchable data set such as, for example, webpages, video, multimedia files, and PDF files, related to user’s search query word.”

Term 4	SKKU’s Construction	Pinterest’s Construction
“asking an apparatus”	“asking, for example, an information communication terminal having the same function as a network or an electronic device capable of accessing a web server through a network”	“sending a single query to a user device”

There are two parts of Term 4 in dispute: “asking” and “apparatus.” The Court construes them each individually.

As to “asking,” SKKU does not propose a new construction of this word but reuses it identically. Joint Construction at 2. Pinterest’s construction, in contrast, limits “asking” to mean “sending a single query.” *Id.* Here, the Court agrees with SKKU and finds no construction of “asking” is necessary. “Asking” is already clear: it denotes a request sent



1 from the asking party to the asked party. Pinterest argues that it wants to use the word  
 2 “query” so that the jury will understand that the term describes a machine-to-machine  
 3 communication. But Pinterest’s construction reads a specific query method into the  
 4 term—“a single query”—which is unwarranted and is supported by neither the claim nor  
 5 the specification. Accordingly, “asking” should be understood in its plain and ordinary  
 6 meaning: asking an apparatus to transmit user preference information. *See* ’687 Patent col.  
 7 6:45–50. The Court sees no need to exchange the word “asking” with the word “query”  
 8 for the jury, and further finds no basis for Pinterest’s additional limitation of a “single”  
 9 query when the original language does not reference the number of queries.

10 Next, the Court considers “apparatus.” SKKU advocates for an ordinary meaning  
 11 of “apparatus,” which includes but is not limited to “user device.” Meanwhile, Pinterest  
 12 reads “apparatus” as “user device.” This is a hotly contested term between the parties, not  
 13 only because it appears in three disputed claim terms (Terms 4, 5, 9) and numerous other  
 14 instances throughout the patent, but also because the construction of “apparatus” may be  
 15 dispositive of SKKU’s infringement action. In the patent, the “apparatus,” as opposed to  
 16 “server(s),” receives requests for user preference information. *See* ’687 Patent col. 2:6–15.  
 17 According to Pinterest, Pinterest’s servers, as opposed to “user devices,” receive requests  
 18 for user preference information. Def. Resp. Br. at 14 n.9. In other words, if “apparatus” is  
 19 equivalent to “user device,” then SKKU’s Claim 9 (“asking an apparatus for user  
 20 preference information”) might not apply to Pinterest because Pinterest does not ask user  
 21 devices for user preference information.

22 The examples for “apparatus” provided by SKKU include an “information  
 23 communication terminal” and “an electronic device capable of accessing the web-server  
 24 through the network.” ’687 Patent col.5:62–67; Pl. Reply Br. at 12. Pinterest argues that  
 25 the patent specification consistently explains “apparatus” as a user device, that the  
 26 prosecution history reflects the deliberate choice of “user devices” as opposed to servers,  
 27 and that the plaintiff’s brief also refers to “apparatus” as “user’s apparatus” or “an  
 28 apparatus [i.e. user device].” *See* Def. Resp. Br. at 5–6.

The Court finds that intrinsic evidence suggests a broader reading of “apparatus” than just “user device.” The specification contains numerous references to an apparatus without any reference to a “user device.” *See, e.g.*, ’687 Patent col. 5:62–65; 6:1; 6:17; 7:4; 8:26. The specification also defines “apparatus” broadly as “an information communication terminal . . . such as desktop computers, PDA and mobile phones.” *See* ’687 Patent col. 5:62–65. Because the specification is “the single best guide to the meaning of a disputed term,” the express definition of apparatus should end this dispute. *Phillips*, 415 F.3d at 1315 (Fed. Cir. 2005). In many embodiments, an apparatus can be referred to as a user device, but that does not mean apparatus is limited to the definition of “user device.” Nowhere does the patent suggest that “user device” is the controlling meaning of “apparatus.”

Pinterest also argues that SKKU has conceded that “apparatus” as user device in its opening brief. Def. Resp. Br. at 6 (quoting SKKU Opening Brief at 1) (“Claim 9 asks the *user device* for the user profile”). However, attorney arguments are not what the Court can rely on to construe “apparatus.” How SKKU’s brief references certain terms is neither intrinsic nor extrinsic evidence. *Markman*, 52 F.3d at 980 (extrinsic evidence can be expert testimony, dictionaries, and treatises). The Court finds Pinterest’s reliance on the language of the brief unavailing.

Accordingly, the Court adopts SKKU’s construction and construes Term 4 as follows: “asking, for example, an information communication terminal having the same function as a network or an electronic device capable of accessing a web server through a network.”

Term 5	SKKU’s Construction	Pinterest’s Construction
“collected in the apparatus”	“collected in any storage media of the apparatus, including data written in a mapping table or other store”	“detected and stored by the user device for generating a user profile in the user device”

The Court finds that “collected” does not need further construction and should be understood by its plain and ordinary meaning. “Apparatus” is construed as discussed above in Term 4.

Accordingly, the Court construes Term 5 as follows: “collected in any storage media of the apparatus (e.g., an information communication terminal having the same function as a network or an electronic device capable of accessing a web server through a network), including data written in a mapping table or other store.”

Term 6	SKKU’s Construction	Pinterest’s Construction
“the keyword is detected by using tag information”	“performing a detection or determination operation of a keyword with tag information either before or after the tag information is written to a store”	“the keyword is read from the text of an anchor tag clicked by the user at the time the anchor tag is clicked and the corresponding web document is outputted to the user device”

Because both parties have agreed that Term 6 is duplicative of Term 1, and stipulated in the June 17, 2020, Markman hearing that Term 6 be dropped from their dispute, the Court will jettison Term 6 from claim construction considerations.

Term 7	SKKU’s Construction	Pinterest’s Construction
“an anchor tag”	“is, for example, the tag generating a hyperlink among the HTML producing the hyperlink text”	“HTML tag generating a hyperlink among the HTML producing the hypertext and with the format of <a href=“URL”>Anchor text</a>”
Term 8	SKKU’s Construction	Pinterest’s Construction
“a form tag”	“is, for example, query information”	“HTML tag for receiving data from the user for web programming and transferring data to the server”

Term 9	SKKU's Construction	Pinterest's Construction
"a web document outputted to the apparatus"	"is, for example, a webpage similar to Figure 3"	"HTML web page displayed on the user device"

The Court discusses Terms 7, 8, and 9 together as they all present essentially the same question. As to all three terms, the Court rejects both parties' constructions and finds that the terms do not require construction and should be understood based on their plain and ordinary meanings.

The dispute boils down to whether "HTML" should be read into all three terms. The "HTML" addition is relevant because mobile devices, including those that access Pinterest's website, do not use HTML web documents. Def. Resp. Br. at 18 n.12. Pinterest argues that anchor tags, form tags, and web pages are by nature entities in HTML. This is precisely why the terms need no further HTML redundancy in the construction. SKKU's constructions, on the other hand, come directly from the specification. However, SKKU's proposed definitions are not definitions at all: instead, SKKU simply provides one example of each term. Joint Claim Construction at 2–3.

The Court further finds that the patent clearly describes all three terms and no construction is necessary. As to Term 7, it is clear what an anchor tag is from the specification, which defines an anchor tag as the tag generating a hyperlink among the HTML producing the hypertext. '687 Patent 7:60–65. As to Term 8, the patent clearly describes what a form tag is: "form tag information can be query information such as a text string which a user queries to a command processing unit . . . ." The patent also illustrates in Fig. 6 a webpage including an address bar in which form tag information is displayed.

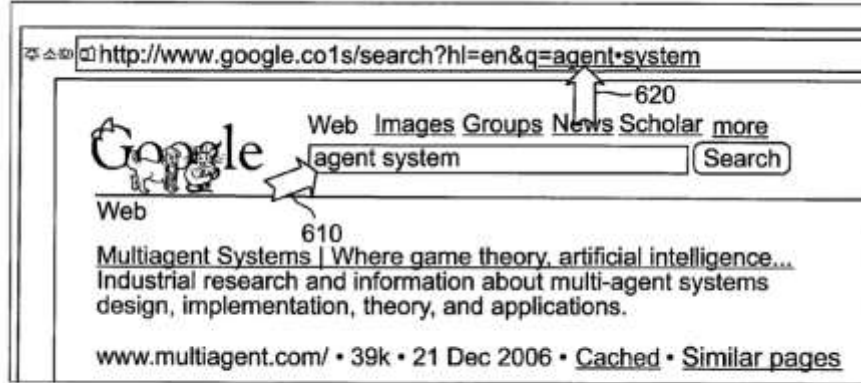


FIG.6

See '687 Patent col. 8:55–57.

As to Term 9, “a web document outputted to the apparatus” does not need further construction because the phrase is not technical nor complicated. It uses plain and ordinary language that the jury can understand.

The Court therefore finds that Terms 7, 8, and 9 require no construction and remain as follows: “an anchor tag,” “a form tag,” and “a web document outputted to the apparatus.”

#### IV. CONCLUSION

The Court CONSTRUES the disputed terms as follows:

	Term	Construction
1	“detected by using tag information extracted from...an anchor tag”	“performing a detection operation of a keyword with tag information either before or after the tag information is written to a store, where such tag information is extracted from, for example, the tag generating a hyperlink among the HTML producing the hyperlink text”
2	“calculated based on data related to a number of selections of the keyword”	“determined based on calculation of the number of times an anchor tag including the keyword is clicked”
3	“content set related to user’s search query word”	“indexable and searchable data set such as, for example, webpages, video, multimedia files, and PDF files, related to user’s search query word”
4	“asking an apparatus”	“asking, for example, an information communication terminal having the same function as a network or an electronic device capable of accessing a web server through a network”

5	“collected in the apparatus”	“collected in any storage media of the apparatus (e.g. an information communication terminal having the same function as a network or an electronic device capable of accessing a web server through a network), including data written in a mapping table or other store”
6	“the keyword is detected by using tag information”	N/A; parties stipulated to removal from Court’s consideration
7	“an anchor tag”	No construction necessary – plain and ordinary meaning
8	“a form tag”	
9	“a web document outputted to the apparatus”	

**IT IS SO ORDERED.**

Dated: June 26, 2020

  
 NATHANAEL M. COUSINS  
 United States Magistrate Judge